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PREDICTORS OF OUTCOME IN ASYMPTOMATIC PATIENTS WITH SEVERE RHEUMATIC MITRAL REGURGITATION

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Authors: *Duk-Hyun Kang, Dae-Hee Kim, Byung Joo Sun, Jin Oh Na, Jong Seon Park, Jong-Min Song, Hyun Song, Joo Hee Zo, Jae-Kwan Song, Jae-Won Lee, Asan Medical Center, Seoul, South Korea, Catholic University Hospital, Seoul, South Korea*

Background: We tried to identify clinical and echocardiographic predictors of clinical outcome in severe, asymptomatic rheumatic mitral regurgitation (MR).

Methods: From 1997 to 2006, we prospectively enrolled a total of consecutive 185 patients (35 men, age;41±15 yrs) with severe rheumatic MR, and the exclusion criteria were defined as the presence of exertional dyspnea, ejection fraction <0.60, significant mitral stenosis or aortic valve disease. Severe rheumatic MR was defined as a restricted motion and thickening of mitral valve (MV) with the radius of proximal isovelocity surface area of MR > 8 mm documented by echocardiography. Early surgery was performed on 57 patients within 6 month of enrollment (group A), and conventional strategy was chosen for 128 patients (group B). The endpoint of the study was defined as cardiac death during follow-up.

Results: In the group A, MV repair and replacement were performed successfully in 38 (67%) patients and 19 (33%) patients, respectively. During a median follow-up of 91 months, there was 1 non-cardiac and 1 cardiac death in the group A, and 9 cardiac deaths in the group B, and the 8-year cardiac mortality-free survival rates were similar between the two groups (98±2% and 94±2% in group A and B, p=NS). Age (hazard ratio 2.89, p=0.005) was the only independent variable associated with cardiac mortality on Cox multivariate analysis. In the group B, 42 patients underwent late MV surgery (25 MV repair and 17 MV replacement), and survival rates free of cardiac mortality or surgery were 68±4% at 4 years and 51±6% at 8 years. The effective regurgitant orifice area of MR (hazard ratio 1.16, p=0.006) and left atrial diameter (hazard ratio 1.04, p=0.002) were independent variables predicting late development of cardiac mortality or surgery on Cox multivariate analysis. The successful MV repair was not related to timing of surgery, but calcification of MV (p = 0.001) and age (p = 0.028) were unfavorable predictors of MV repair on multivariate logistic regression analysis.

Conclusion: The conventional treatment strategy showed satisfactory long-term results, and early surgery can be considered for selected patients only with very high likelihood of MV repair.